The delights, discomforts, and downright furies of the manuscript submission process

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Key Points

1. Instructions to authors about submitting papers for publication vary hugely — from none at all to whole handbooks.
2. Online submission systems have not reduced the complexity of submission and may have increased the work of authors.
3. Electronic submission processes do not appear to have been adequately 'road tested' with authors.
4. Some publishers are introducing more flexible submission rules that may help authors.

Introduction

The first scientific journal, the *Journal des Sçavans*, was published in Paris in January, 1665, hotly pursued by *Philosophical Transactions* in London in March of the same year (McKie, 1948; Singleton, 2014). However, most learned societies started to publish their own journals in the early twentieth century and later on these journals began to be taken over by commercial publishers (Meadows, 1974, 1979). In these good old days — long before computers — authors wrote their articles first by hand, and then with typewriters. One or two 'carbon' copies could be made, and the master copy — and possibly a carbon one — mailed to an editor. Next to develop were electronic type-writers — some readers may remember the

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IBM golf-ball — and Xerox copying machines. Up to this time the correspondence between author(s), editor(s), and referees could take months, especially if different countries were involved. Computer-based communication, writing, and reproduction then followed — with different typefaces, settings, layouts, colours, voice-activated systems, etc. — all available at the touch of a button.

Throughout this time manuscript submission processes varied (and continue to vary) according to the size and impact of a journal (Kirby, 2015). Initially — in the 1920s — instructions for authors were given in each issue of a print journal, and possibly later in more detail in the first issue of an annual volume. As reported in Table 1 some journals in Education and Psychology still use these procedures today.

Table 1 Four types of instructions for the submission of articles printed in Education and Psychology journals today. Such printed instructions vary in length according to the size and prestige of journals. Most of them direct the reader to more detailed instructions available electronically.

1. Journals with no instructions in the journal:
   - *Educational Developments*
   - *Educational Psychologist*
   - *Educational Psychology*
   - *Journal of the Medical Library Association*
   - *Monitor on Psychology*
   - *The Psychologist*

2. Journal with one paragraph of instructions in the journal:
   - *The Psychology of Education Review*

3. Journals with one page (or less) of instructions in the journal:
   - *British Journal of Educational Psychology*
   - *Educational and Child Psychology*
   - *Innovations in Teaching and Training Technology*

4. Journals with brief instructions in the journal followed by instructions to go to the website for further instructions:
   - *American Psychologist*
   - *British Journal of Educational Technology*
   - *Journal of Educational Psychology*

Eventually, as these instructions got more detailed, style manuals were made available for purchase. For example, the first APA (American Psychological Association) style guide contained six-and-a-half pages and was published in a journal in 1929 — nearly 90 years ago (Bentley et al., 1929). This version was then revised in 1944 and 1952 (see APA, 2001, pp. 363–364). Book-length editions then followed in 1967, 1974, 1983, 1994, 2001 and 2010. The largest of these tomes (the 2001 edition) contained 28 preliminary pages before 439 pages of instructions. The current (somewhat shorter) edition of the APA *Manual* (the 6th, with 272 pages, APA, 2010d) was published in 2010 — although this issue had to be withdrawn and reprinted (see `http://www.apastyle.org/manual/corrections-faqs.aspx#errors`) because it contained so many errors and confusions! And, presumably, because this manual was so complicated, additional supplements were also published — the *Concise Rules of APA Style* (6th edition) (APA, 2010a), *Mastering the APA Style: Student's Workbook and Training Guide* (6th edition) (APA, 2010c) and *Mastering the APA Style: Instructor's Resource Guide* (6th edition) (APA, 2010b). Now, since

we began this paper, the APA has introduced a computer suite of four programs under the general heading of *APA Style Central*: 'A revolutionary new institutional electronic resource for APA style' (including 'more than 80 forms for proper reference formatting')...

This brief history of journal publishing reminds us of something that we tend to forget. This is that the submission process has *always* been complicated, and that the current concerns of this article are not in fact new, even though they feel as though they are.

Editorial management systems

Most major journals in any discipline now use online editorial managers (Morris, Barnas, LaFrenier, & Reich, 2013; Ware & Mabe, 2015, pp. 50–51), such as:

- *Open Journal Systems* by the Publish Knowledge Project — see, e.g., `http://blake.lib.rochester.edu/blakeojs/` for *Blake* at the University of Rochester.
- *ScholarOne* by Thomson Reuters — see, e.g., `https://mc.manuscriptcentral.com/leap` for Wiley's *Learned Publishing*.
- *Editorial Manager* by Aries — see, e.g., `http://scim.edmgr.com/` for Springer's *Scientometrics*.
- *Elsevier Editorial System* — see, e.g., `http://ees.elsevier.com/frbm/` for Elsevier's *Free Radical Biology and Medicine*, the first journal to implement *Your Paper, Your Way* (Davies, 2011), which is discussed further in this paper.

These are electronic portals/websites where authors submit their manuscripts and where most of the previous hand-based submission procedures have been automated — but not necessarily all of them. Thus, as in the earlier printed manuals, today's electronic instructions for authors also vary in length and detail. Table 2 summarises the nature of some of these instructions and how they are often interpreted by authors.

Table 2 The instructions for the submission of articles printed in electronic journals vary in length and complexity according to the size and prestige of journals. Here we provide four schematic examples and their meanings in order of their ease for the author.

- 'Submit your manuscript in any (appropriate) format and we will reset it for you...' (Note that any (appropriate) format does NOT mean in ANY format: the previous rules for particular formats still have to be followed.)
- 'Submit your manuscript following the style of the journal and we will attend to the details (like type-face, type-size, paragraphing, headings, etc.) for you...'
- 'Follow the details* on how to submit to the letter — and we will then ask you for things you had not planned for (like the names and e-mails of potential referees, electronic signatures on copyright release forms, etc.)...'
- 'Follow the details to the letter* on how to submit when preparing your manuscript or we will send it back...'

* These details include choice of type-face, type-sizes, paragraph denotation, typographic setting and position of headings, figures, tables, and page numbers, author blinding or not, name(s) of suggested referees or not, and settings for references. They vary in practically every journal, or at least in every publisher's 'house-style.'

Presumably the authors of articles for major journals are required to remember these instructions or perhaps print them out first and then follow them according to the types of articles they are submitting. Table 3 provides some illustrations of the lengths of such instructions.

Table 3 Estimates of the numbers of pages (Pp) or lines (L) of instructions in electronic systems for different sections in different journals.

	Journal A	Journal B	Journal C	Journal D	Journal E
Overall	19 Pp	10 Pp	7 Pp	7 Pp	3 Pp
Abstracts	1 L	2 L	2 L	16 L	2 L
Titles	0.75 L	6 L	2 L	1 L	6 L
Tables	1 L	10 L	1 L	0.25 Pp	2 L
Figures	0 L	3 L	1 L	0.5 Pp	0.5 Pp
References	2.25 Pp	0.5 L	0.75 Pp	2.5 Pp	0.5 Pp

Notes:

- A: Journals published by the Medical Library Association.
- B: *Scientometrics* published by Springer.
- C: *Learned Publishing* published by Wiley.
- D: Biomedical journals complying with the *Uniform requirements for manuscripts submitted to biomedical journals* (International Committee of Medical Journal Editors, 1997).
- E: Journals published by the American Psychological Association. There are several different sets of online instructions here — one for new authors, one referring the reader to the paper manual, and one providing a checklist for manuscript submission. In all cases the authors are referred to use the (APA, 2010d) printed *Manual* (272 pages) — although this may change to *StyleCentral* shortly.

Why have journals moved to electronic submission?

New technology, new disciplines, new discoveries, new authors — all are catered for by new electronic methods. Electronic submission shifts part of the burden from the typesetter/publisher to that of the author. Authors are now required to do some of the work that publishers used to do for them and authors find it hard not to think that this is just to save the publishers' money. And, in many cases, it appears that these electronic systems have been designed by computer-based aficionados without any — or sufficient — testing with their authors. Indeed, it is noticeable that recent articles on how to set up electronic journals scarcely mention authors or their possible difficulties (e.g., Kirby, 2015; Mindell, 2015; Salem, Culbertson, & O'Connell, 2016). This may not cause problems for young authors familiar with computers but it is certainly not true for older ones and those who are visually and or physically impaired (Gies, Boucherie, Narup, Wise, & Giudice, 2016).

What can be done?

Brischoux and Legagneux (2009) suggested in *The Scientist* that one solution to these problems was that all journals should use a generic submission format (in LaTeX) until the paper was accepted for publication. Then, they suggested, the text, tables, figures, footnotes, and references could be formatted according to the journal's house-style by applying automatically predefined templates – requiring no human effort at all.

Another rather different kind of solution has sometimes been used by the first author of this paper. Here, on submission of a previous paper to *Learned Publishing*, he shamefacedly asked the editor that it be submitted for him. In this instance this was done with the help of 13 e-mail exchanges. Now we note with interest that the instructions to the authors for *Learned Publishing* state that: "Help with submitting online can be obtained from the Editor-in-Chief, Pippa Smart (editor@alpsp.org)" on http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1741-4857/homepage/ForAuthors.html.

More recently, however, such help was refused from another journal on the grounds that 'submissions could only be made through a personal account on the journal's website' and that no-one else could submit a paper for the author. To be fair, though, the editor did provide a set of helpful directions that clarified that particular journal's procedures.

It is hard to see why, of course, such clear instructions cannot be provided in the first place... Accordingly in the Appendix we have suggested a checklist of the items that authors may need to have at hand when submitting a paper.

Meanwhile several authors have continued to moan, much as in this paper. Anderson (2015), for instance, posted a blog post entitled 'The manuscript submission mess,' and this was followed by over 50 responses discussing the submission process. Similarly, Chambers (2016) posted a blog called 'The things you hate most about submitting manuscripts.' Some of the more pertinent suggestions, taken from these blogs and those of others, are as follows:

- Editors and reviewers should consider manuscripts in any (appropriate) format first — and publishers reset only the accepted papers.
- There should be three or four standard formats for journals that everyone can copy. Trivial house style requirements should be abolished.
- The layouts of tables, graphs and references also need to be standardised more. Tables and graphs, and their caption, should be placed where they fit in the text, not at the end of manuscripts.
- A named person (with an e-mail address at the publisher's) should be provided by the publisher who can help with the submission process if an author gets stuck.
- Finally, when the submission process is completed successfully or otherwise, authors should be invited to send any comments/feedback on the system that they have used.
- These authors' comments, as well as the whole system, should be reviewed, say every 3–5 years.

Finally the Proofs

Successful authors (in both paper writing and paper submission) sometimes face additional difficulties when it comes to proofreading. Hunter (2004) argues that proofreading is an important stage of the publication process, since errors, typos, and layout issues might have escaped the typesetters' vigilance. Indeed, the typesetters themselves might have unwittingly created some of them! Today, some journals (like *PLOS ONE*) do not provide authors with proofs and, consequently, additional papers that correct errors are piling up (Chawla, 2016). With some journals authors are often allocated a very short time (e.g., two business days) to check the proofs and mark their change requests. We view online proofreading systems as yet another tool (bringing yet more delights, discomforts, and downright furies) that contemporary academics need to tame...

An eventual solution?

Currently the *Your Paper, Your Way* (YPYW) proposal comes closest to the ideal solution to the problems discussed here. Its early proponent, Davies (2011, p. 247) wrote:

> "submit your paper to a journal without worrying about formatting the manuscript, including those pesky references, to their exact specifications"

Note, however, that the burden of paper formatting remains on authors, as it is not alleviated but delayed from the submission phase to the revision phase:

> "If we don't accept your paper, you will have saved valuable time and effort. If we do accept your paper we will, of course, ask you to format your work to fit the *Free Radical Biology & Medicine* style, but we suspect you won't mind at that point." (Davies, 2011, p. 247)

Davies (2011, 2012), Fennell and Barrie (2014), and Landers (2016) provide various accounts of how YPYW works for different Elsevier science journals. The YPYW approach has been adopted by other journals like *eLife* that provides a detailed account of the rationale for it and instructions for submitting articles to it (`https://submit.elifesciences.org/html/elife_author_instructions.html`). Examples are given of typical settings for books, journal articles, conference papers, podcasts, and blogs, together with the instruction that, 'Authors can submit manuscripts formatted in a variety of reference styles, including Harvard, Vancouver and Chicago.' Note that YPYW does not say that non-standard referencing is possible, so authors are still constrained despite their apparent freedom.

In our view Brischoux and Legagneux's (2009) suggestion is perhaps the most sensible one: Let authors submit papers using a generic template and let machines automatically re-set accepted ones. The authorea.com and overleaf.com platforms provide such a desirable feature with built-in templates for hundreds of journals. They also support real-time collaborative writing, document versioning, one-click pre-submission checks, and submission to a range of journals. These platforms are listed among the 400+ tools and innovations in scholarly communication supporting seven research phases outlined by Bosman and Kramer (2015) — namely: preparation, discovery, analysis, writing, publication, outreach, and assessment.

Concluding remarks

In this paper we have tried to encapsulate the frustrations that many authors feel when using manuscript submission systems. Undoubtedly these new systems have many benefits, such as the ability to detect plagiarism and fake articles (Van Noorden, 2014). They also speed up the production process — once the authors have had their articles accepted for publication. One has only to look typewriters from the 1920s to see how far we have come.

Appendix: The author's checklist — Some possible requirements for submitting journal papers electronically

Once the paper is ready, and the order of co-authors in the byline is agreed upon (Kosmulski, 2012), prepare separately and have at hand in case you are suddenly asked for it:

1. Your password on the journals' editorial manager if you already signed up.
2. The postal address of all co-authors.
3. The e-mail address of all co-authors.
4. The national and international phone numbers of all co-authors.
5. The ORCID number of all co-authors (see Haak, Fenner, Paglione, Pentz, & Ratner, 2012).
6. The name of the 'corresponding author' who will be sent the proofs to review in a short period of time (Hu, 2009; Mattsson, Sundberg, & Laget, 2011).

7. A title page, with authors' addresses and e-mails and the abstract on a separate sheet (formatted according to the journal's style guide).
8. A version of the above without the authors names, addresses and e-mails.
9. A list of key words (or an abstract with key words below).
10. Names, addresses, and e-mails of possible referees — just in case you are asked, but this is increasingly unlikely (see Ferguson, Marcus, & Oransky, 2014).
11. A file of the text and references formatted according to the journal's style guide (it is helpful here to download a similar paper from the journal to act as a guide).
12. A separate file of tables (in case they are not embedded in the text).
13. A separate file of table captions (in case they are treated separately).
14. A separate file of figures (in case they are not embedded in the text).
15. A separate file of figure captions (in case they are treated separately).
16. A graphical abstract (Gilaberte, Nagore, Arias-Santiago, & Moreno, 2016; Hartley, 2016; Lane, Karatsolis, & Bui, 2015).
17. A tweetable abstract (Hartley, 2016; Ponton, 2013). For instance, the *Journal of Animal Ecology* encourages authors in these words: "We are on Twitter and will tweet about your paper as soon as it is online — we can write the tweet, but we encourage to you send us a catchy tweetable abstract that captures the essence of your work in 125 characters or less (to allow us to add the link to the paper). Don't forget to let us know if you are on Twitter too, so we can tag you." (`http://www.journalofanimalecology.org/view/0/Promotingyourpaper.html`)
18. An archive with the data used in your article (Borgman, 2012; Hanson, Sugden, & Alberts, 2011).
19. A covering letter to the editor. Some editors consider this as a "valuable document that summarizes the research for editors and reviewers and may make the difference between a granted peer-review or outright rejection" (Kenar, 2016, p. 1171). Note, however, that its value is not universally acclaimed (Moustafa, 2015).
20. A Copyright Transfer Agreement (see, e.g., Berquist, 2009) signed by all co-authors or the corresponding author in some cases and ready to be scanned (for some journals).

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